Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Original) A method of transmission power control for a transmitting wireless transmit receive unit (WTRU) that transmits successive data sets in a forward channel where the transmitting WTRU is configured to make forward channel power adjustments as a function of characteristics of the data sets as received over the forward channel, the method comprising:

sequentially receiving successive data sets transmitted from the transmitting WTRU on the forward channel;

successively computing transmit power control signals for the transmitting WTRU's forward channel power adjustments based on the characteristics of each of the data sets received on the forward channel;

successively computing a bias error value based on the cumulative characteristics of the data set signals received on the forward channel; and

in advance of each successive data set after the transmission of a first data set, adjusting forward channel power as a function of the most recently computed transmit power control signal and most recently computed bias error value.

2.   (Original) The method of claim 1 wherein the transmitting WTRU is a network unit that transmits data sets on a downlink channel and the computing of transmit power control signals is performed by a receiving WTRU that receives the downlink channel.

3.   (Original) The method of claim 2 wherein the transmitting WTRU computes the bias error values.

4.   (Original)   The method of claim 2 wherein the receiving WTRU computes the bias error values.

5.   (Original)   The method of claim 1 wherein the transmitting WTRU transmits user signals on an uplink channel and the computing of transmit power control signals is performed by a network unit that receives the uplink channel.

6.   (Original)   The method of claim 5 wherein the transmitting WTRU computes the bias error values.

7.   (Original)   The method of claim 5 wherein the receiving WTRU computes the bias error values.

8.   (Original)   The method of claim 1 in which closed loop transmission power control for the transmitting WTRU is implemented and the transmit power control signals are computed by a receiving WTRU that produces power step commands as a function of computed target Signal to Interference Ratios (SIRs), further comprising:

transmitting the power step commands on a reverse channel by the receiving WTRU; and

receiving the power step commands by the transmitting WTRU on the reverse channel and computing power adjustments for forward channel transmissions based on the received power step commands.

9.   (Original)   The method of claim 8 wherein the transmitting WTRU is a network unit that transmits data sets on a downlink channel and also computes the bias error values.

10. (Original) The method of claim 8 wherein the transmitting WTRU is a network unit that transmits data sets on a downlink channel and the receiving WTRU computes the bias error values and transmits the power step commands and the bias error values on an uplink channel.

11. (Original) The method of claim 8 wherein the method is implemented in a Universal Mobile Telecommunications System (UMTS) where the transmitting WTRU is configured as Node B and the receiving WTRU is configured as a mobile User Equipment (UE).

12. (Original) A receiving wireless transmit receive unit (WTRU) for implementing transmission power control for a transmitting WTRU that transmits successive data sets in a forward channel where the transmitting WTRU is configured to make forward channel power adjustments as a function of characteristics of the data sets as received over the forward channel, the receiving WTRU comprising:

a receiver configured to sequentially receive successive data sets transmitted from the transmitting WTRU on the forward channel;

a processor configured to successively compute transmit power control signals for the transmitting WTRU's forward channel power adjustments based on the characteristics of each of the data sets received on the forward channel;

said processor configured to successively compute a bias error value based on the cumulative characteristics of the data set signals received on the forward channel; and

a transmitter configured to transmit on a reverse channel the transmit power control signals for the transmitting WTRU's forward channel power adjustments and the bias error values to the transmitting WTRU to thereby enable the transmitting WTRU, in advance of each successive data set after the transmission

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of a first data set, to adjust forward channel power as a function of the most recently computed transmit power control signal and most recently computed bias error value.

13. (Original) The invention of claim 12 in which closed loop transmission power control for the transmitting WTRU is implemented wherein the receiving WTRU is configured to compute the transmit power control signals by producing power step commands as a function of computed target Signal to Interference Ratios (SIRs).

14. (Original) The invention of claim 13 wherein the receiving WTRU is configured as a User Equipment (UE) for use in a Universal Mobile Telecommunications System (UMTS) where the UE receiver is configured to receive the data signal sets on a down link channel and the UE transmitter is configured to transmit the power step commands and the bias error values on an uplink channel.

15. (Original) A transmitting wireless transmit receive unit (WTRU) having transmission power control comprising:

a transmitter configured to transmit successive data sets in a forward channel;

a processor associated with the transmitter configured to make forward channel power adjustments as a function of characteristics of the data sets as received over the forward channel;

a receiver configured to successively receive on a reverse channel successively computed transmit power control signals for the transmitting WTRU's forward channel power adjustments based on the characteristics of each of the data sets received on the forward channel and successively computed bias error values based

on the cumulative characteristics of the data set signals received on the forward channel; and

the processor configured to adjust forward channel power as a function of the most recently received transmit power control signal and most recently received bias error value in advance of the transmission of each successive data set after the transmission of a first data set.

16. (Original) The invention of claim 15 in which closed loop transmission power control is implemented wherein the receiver is configured to successively receive power step commands produced as a function of computed target Signal to Interference Ratios (SIRs) as the computed transmit power control signals.

17. (Original) The invention of claim 16 wherein the transmitting WTRU is configured as a Node B for use in a Universal Mobile Telecommunications System (UMTS) where the Node B transmitter is configured to transmit the data signal sets on a down link channel and the Node B receiver is configured to receive the power step commands and the bias error values on an uplink channel.

18. (Original) A wireless communication system comprising a transmitting WTRU according to claim 15 and a receiving WTRU including:

a receiver configured to sequentially receive successive data sets transmitted from the transmitting WTRU on the forward channel;

a processor configured to successively compute transmit power control signals for the transmitting WTRU's forward channel power adjustments based on the characteristics of each of the data sets received on the forward channel;

said processor configured to successively compute a bias error value based on the cumulative characteristics of the data set signals received on the forward channel; and

a transmitter configured to transmit on a reverse channel the transmit power control signals for the transmitting WTRU's forward channel power adjustments and the bias error values to the transmitting WTRU.

19.   (Original) The invention of claim 18 in which closed loop transmission power control for the transmitting WTRU is implemented wherein the receiving WTRU is configured to compute the transmit power control signals by producing power step commands as a function of computed target Signal to Interference Ratios (SIRs).

20.   (Original)   The invention of claim 19 where the wireless communication system is configured as a Universal Mobile Telecommunications System (UMTS) wherein the transmitting WTRU is configured as a Node B where the Node B transmitter is configured to transmit the data signal sets on a down link channel and the Node B receiver is configured to receive the power step commands and the bias error values on an uplink channel and the receiving WTRU is configured as a User Equipment (UE) where the UE receiver is configured to receive the data signal sets on the down link channel and the UE transmitter is configured to transmit the power step commands and the bias error values on the uplink channel.

21.   (Currently amended) A transmitting wireless transmit receive unit (WTRU) having transmission power control comprising:

a transmitter configured to transmit successive data sets in a forward channel;

a processor associated with the transmitter configured to make forward channel power adjustments as a function of characteristics of the data sets as received over the forward channel;

a receiver configured to successively receive on a reverse channel successively computed transmit power control signals for the transmitting WTRU's forward channel power adjustments based on the characteristics of each of the data sets received on the forward channel;

a bias error component configured to successively <u>compute</u> [[computed]] bias error values based on the successively received transmit power control signals; and

the processor configured to adjust forward channel power as a function of the most recently received transmit power control signal and most recently computed bias error value in advance of the transmission of each successive data set after the transmission of a first data set.

22. (Original) The invention of claim 21 in which closed loop transmission power control is implemented wherein the receiver is configured to successively receive power step commands produced as a function of computed target Signal to Interference Ratios (SIRs) as the computed transmit power control signals.

23. (Original) The invention of claim 22 wherein the transmitting WTRU is configured as a Node B for use in a Universal Mobile Telecommunications System (UMTS) where the Node B transmitter is configured to transmit the data signal sets on a down link channel and the Node B receiver is configured to receive the power step commands on an uplink channel.

24. (Original) The invention of claim 22 wherein the transmitting WTRU is configured as a UTRAN for use in a Universal Mobile Telecommunications System (UMTS) where the transmitter is disposed in a Node B and configured to transmit the data signal sets on a down link channel, the receiver is disposed in the Node B and configured to receive the power step commands on an uplink channel,

and the bias error component is disposed in a Radio Network Controller (RNC) that controls the Node B.

25. (Original) A wireless communication system comprising a transmitting WTRU according to claim 21 and a receiving WTRU including:

a receiver configured to sequentially receive successive data sets transmitted from the transmitting WTRU on the forward channel;

a processor configured to successively compute transmit power control signals for the transmitting WTRU's forward channel power adjustments based on the characteristics of each of the data sets received on the forward channel; and

a transmitter configured to transmit on a reverse channel the transmit power control signals for the transmitting WTRU's forward channel power adjustments.

26. (Original) The invention of claim 25 in which closed loop transmission power control for the transmitting WTRU is implemented wherein the receiving WTRU is configured to compute the transmit power control signals by producing power step commands as a function of computed target Signal to Interference Ratios (SIRs).

27. (Original) The invention of claim 26 where the wireless communication system is configured as a Universal Mobile Telecommunications System (UMTS) wherein the transmitting WTRU is configured as a Node B where the Node B transmitter is configured to transmit the data signal sets on a down link channel and the Node B receiver is configured to receive the power step commands on an uplink channel and the receiving WTRU is configured as a User Equipment (UE) where the UE receiver is configured to receive the data signal sets on the down link channel and the UE transmitter is configured to transmit the power step commands on the uplink channel.

28. (Original) The invention of claim 26 where the wireless communication system is configured as a Universal Mobile Telecommunications System (UMTS) wherein the receiving WTRU is configured as a User Equipment (UE) where the UE receiver is configured to receive the data signal sets on the down link channel and the UE transmitter is configured to transmit the power step commands on the uplink channel and the transmitting WTRU is configured as a UTRAN where the UTRAN transmitter is disposed in a Node B and configured to transmit the data signal sets on a down link channel, the UTRAN receiver is disposed in the Node B and configured to receive the power step commands on an uplink channel, and the UTRAN bias error component is disposed in a Radio Network Controller (RNC) that controls the Node B.